

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application. Where claims have been amended and/or canceled, such amendments and/or cancellations are done without prejudice and/or waiver and/or disclaimer to the claimed and/or disclosed subject matter, and Applicants reserve the right to claim this subject matter and/or other disclosed subject matter in a continuing application or otherwise.

1. (currently amended) A method of allocating storage to a system user of ~~an~~ on-demand storage area network, the on-demand storage area network ~~comprising~~including at least one data storage device and a plurality of servers accessing the at least one data storage device, each data storage device comprising at least one logical drive, the method comprising:

identifying at least one master storage image that is stored in at least one data~~the~~ storage device of the on-demand storage area network and that will be associated with a system user when a server is allocated to the system user;

pre-configuring at least one identified master storage image with data and state information that is associated with ~~the~~ system user;

generating a plurality of replicas of each identified master storage image prior to at least one server being allocated to the system user; and

dynamically allocating a selected replica of the plurality of replicas of the master storage image to each server allocated to the system user based on traffic received by the on-demand storage area network, the selected replica being contained in a logical volume of a data storage device that is allocated to the system user.

2. (previously presented) The method according to claim 1, further comprising:
de-allocating an allocated replica from the system user each time a server is de-allocated from the system user; and
assigning the de-allocated replica to a pool of de-allocated replicas.

3. (original) The method according to claim 2, wherein the pool of de-allocated replicas is configured to automatically scrub all replicas in the pool of de-allocated replicas asynchronously from de-allocation the step of de-allocation.

4. (original) The method according to claim 3, wherein the pool of de-allocated replicas is scrubbed when a number of de-allocated replicas assigned to the pool of de-allocated replicas equals a predetermined number.

5. (original) The method according to claim 3, wherein the pool of de-allocated replicas is automatically scrubbed by reformatting.

6. (currently amended) The method according claim 1, wherein each replica comprises a logical volume.

7. (currently amended) The method according to claim 1, wherein the system user is one of a customer ~~or~~ an application.

8. (canceled)

9. (currently amended) A method of allocating storage between system users of ~~an~~ on-demand storage area network, the on-demand storage area network comprising ~~including~~ at least one data storage device and a plurality of servers accessing the storage, each data storage device comprising at least one logical drive, the method comprising:

~~selecting~~ identifying at least one master storage image that is stored in at least one the data storage device of the on-demand storage area network and that will be associated with a system user, a selected master storage image ~~comprising~~ including both a read-only data portion and a writeable data portion;

generating a read-only copy of the read-only data portion of the selected master

storage image;

sharing the read-only data copy of the read-only data portion of the selected master storage image across the plurality of servers, the read-only data copy being contained in a logical drive;

allocating the read-only copy of the read-only data portion of the selected master storage image to each server allocated to the system user; and

allocating a separate writable data volume of the writable data portion of the selected master storage image to each server allocated to the system user based on traffic received by the on-demand storage area network, the writable data volume being contained in a logical drive that is different from the logical drive containing the read-only data copy.

10. (previously presented) The method according to claim 9, further comprising:

de-allocating the read-only copy of the read-only data portion of the selected master image from the server to which the read-only copy was allocated when the server is de-allocated from the system user; and

de-allocating the writable data volume of the writable data portion of the selected master storage image that was allocated to the de-allocated server.

11. (previously presented) The method according to claim 10, wherein de-allocating the writable data volume includes the steps of:

assigning the de-allocated writable data volume to a pool of de-allocated writable data volumes; and

scrubbing any writable data volumes assigned to the pool of de-allocated writable data volumes asynchronously from the step of de-allocating the writable data volume.

12. (currently amended) AnA on-demand storage area network, comprising:

a plurality of servers coupled to a storage, the storage comprising at least one data storage device, each data storage device comprising at least one logical drive; and

a storage-provisioning device coupled to the servers and allocating at least one server and a portion of the storage to a system user, the storage-provisioning device identifying at least one master storage image that is stored in at least one the data storage device and that will be associated with a system user when a server is allocated to the system user, at least one master storage image being pre-configured with data and state information that is associated with thea system user, the storage-provisioning device further generating a plurality of replicas of each identified master storage image prior to at least one server being allocated to the system user; and dynamically allocating a selected replica of the plurality of replicas of the master storage image to each server allocated to the system user based on traffic received by the on-demand storage area network, the selected replica being contained in a logical volume of a data storage device that is allocated to the system user.

13. (currently amended) The on-demand storage area network according to claim 12, wherein the storage-provisioning device de-allocates an allocated replica from the system user each time a server is de-allocated from the system user removes a server, and assigns the de-allocated replica to a pool of de-allocated replicas.

14. (currently amended) The on-demand storage area network according to claim 13, wherein the pool of de-allocated replicas automatically scrubs all replicas in the pool of de-allocated replicas asynchronously from de-allocation the step of de-allocation.

15. (currently amended) The on-demand storage area network according to claim 14, wherein the pool of de-allocated replicas is scrubbed when a number of de-allocated replicas assigned to the pool of de-allocated replicas equals a predetermined number.

16. (currently amended) The on-demand storage area network according to claim 14, wherein the pool of de-allocated replicas is automatically scrubbed by reformatting.

17. (currently amended) The on-demand storage area network according claim 12, wherein each replica comprises a logical volume.

18. (currently amended) The on-demand storage area network according to claim 12, wherein the system user is one of a customer or an application.

19. (canceled)

20. (currently amended) ~~An~~ on-demand storage area network, comprising:
a plurality of servers coupled to a storage, the storage comprising at least one data storage device; and
a storage-provisioning device coupled to the servers and allocating at least one server and a portion of at least one ~~the~~ data storage device to a system user, the storage-provisioning device ~~selecting~~ identifying at least one master storage image that is stored in at least one ~~the~~ data storage device of the on-demand storage area network and that will be associated with a system user, a selected master storage image ~~comprising~~ including both a read-only data portion and a writeable data portion, the storage-provisioning device further generating a read-only copy of the read-only portion of the selected master storage image and sharing the read-only copy of the read-only portion of the selected master storage image across the plurality of servers, the read-only data copy being contained in a logical drive, the storage-provisioning device allocating the read-only copy of the read-only portion of the selected master storage image to each server allocated to the system user, and allocating a separate writable data volume of the writable data portion of the selected master storage image to each server allocated to the system user based on traffic received by the on-demand storage area network, the writable data volume being contained in a logical drive that is different from the logical drive containing the read-only data copy.

21. (currently amended) The on-demand storage area network according to claim 20,

wherein the storage_provisioning device de-allocates the read-only copy of the read-only portion of the selected master image from the server to which the read-only copy was allocated when the server is de-allocated from the system user, and de-allocates the writable data volume allocated to the server that has been de-allocated.

22. (currently amended) The on-demand storage area network according to claim 21, wherein when the storage_provisioning device de-allocates the writable data volume, the storage_provisioning device assigns the de-allocated writable data volume to a pool of de-allocated writable data volumes and scrubs any writable data volumes assigned to the pool of de-allocated writable data volumes asynchronously from when the storage provisioning device de-allocates the writable data volume.